Adopt a Stream

1987-2007: Celebrating 20 Years of Inspiring Local River Protection

Our 20th anniversary has been a time of reflecting on past successes and looking forward to meet new challenges of the 21st century. The strength of the Adopt-A-Stream (AAS) program lies in our community volunteers, while watershed challenges include increasing development and decreasing water quality, water quantity and continuity. Programmatically, AAS has undergone staff changes and embarked on a strategic planning process to identify strategies to combat watershed threats through harnessing the energy of Massachusetts' stream advocates by bringing the state's watershed stewards together for a common purpose. This year's annual report will reflect on the changes that we have seen over 20 years, highlight current work, and look toward future work—still to be developed in partnership with our Stream Team members.

20 Years of Adopt-A-Stream

***What we truly see, we have a chance of loving; and what we love, we might hold dear.* –Robert Michael Pyle**

At the time of the creation of AAS within the Riverways Program, the goal was to help citizens raise community awareness of local rivers and waterways and to train them to become active stewards. Just five years later, at least one group of organized volunteers was active in each of the 27 major watersheds in Massachusetts. This legacy has left the state with a wealth of dedicated activists who contribute to creating a healthier natural environment and stronger communities. Some of these early groups went on to become non-profit watershed organizations and integral parts of local government and are now a driving force in environmental protection in Massachusetts.

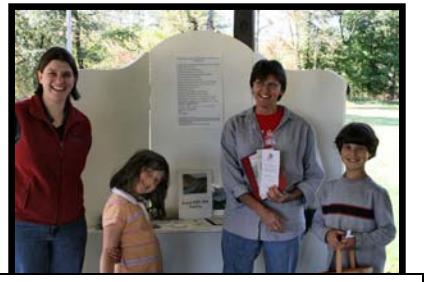
In 1987, Commissioner Walter Bickford began the AAS program with the goal of helping local residents to:

- Protect and restore water quality
- Protect healthy stream flows
- Protect land along rivers and streams
- Improve habitat for wildlife and fish in river corridors
- Promote river-friendly recreation

In the first five years, over 100 groups joined the program by committing to a minimum of one year's worth of work protecting the local resource. Starting in 1992, Stream Teams began using the Shoreline Survey process as a primary means to begin their investigation, identify priorities, and create an Action Plan for the river. To date, over 150 surveys have been completed and incorporated into DEP's Source Water Quality Assessment Reports.

Today, groups that join AAS begin with a Shoreline Survey of the stream, a visual survey that identifies problems and assets by looking at instream conditions, stream corridor conditions and land use, pipes, wildlife and habitat. These surveys lead to actions that support stream health--they have become not only a bonding experience for volunteers, but an eye-opening experience that teaches locals how to analyze the stream system and its components. Volunteers often visit "their" section of stream over and over after the survey to look, compare, and enjoy the surroundings.

An important part of AAS is helping residents to understand that rivers are in our backyards and not just "out there" in a place you have to travel to get to. The following is from a description of a shoreline survey experience. *"We were both struck by how quickly the noise and distractions of the nearby roads dissolved once we entered the tree cover. The gentle gurgling of the stream, which would easily have been drowned out by traffic, became the dominant sound. It reminded me of the hundreds of times I have driven past this area without any recognition of what is here and the values it provides...."*



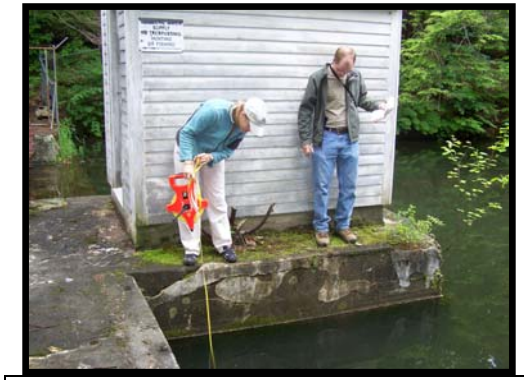
Celebration for "70 Miles Surveyed"

Riverways Program - Department of Fish and Game - 251 Causeway Street - Suite 400 – Boston – Massachusetts - 02114
Deval L. Patrick, Governor – Ian A. Bowles, Secretary, Executive Office of Energy and Environmental Affairs – Mary B. Griffin, Commissioner – Joan Kimball, Director
www.massriverways.org – (617) 626 1540

The opportunity to survey one's own backyard stream leads to immeasurable environmental protection. Stream Team members are involved with local planning and decision making, help to inform master plans, open space plans, and assist in town efforts on water conservation, drinking water protection, and stormwater planning. The Department of Environmental Protection uses information from shoreline surveys when determining where to conduct water quality testing, to determine causes of deterioration and for assessing the aesthetic characteristics of a river segment.

As volunteers and organizations have become more sophisticated and knowledgeable about their local resource, AAS has expanded our services and support. River Continuity surveys involve identification and prioritization for removal/retrofitting of dams and culverts to allow for fish passage and improve habitat. As more rivers "run dry", Stream Teams have started partnering with Riverways' River Instream Flow Stewards program to assess instream flow issues and aquatic habitat needs.

AAS assistance to the Riverways restoration program has been comprehensive. Staff has helped develop projects locally so that they can apply for Riverways' Priority Projects status on the Little River (Gloucester) and the Shawsheen River (Andover) (see related article). AAS developed two River Continuity pilot projects identified through surveys that were completed by local groups in Bronson Brook (Chesterfield) and Tower Brook (Cummington) and led a Labor-In-Vain Brook feasibility study (Somerset).



In 2007, AAS oversaw five site reconnaissance's including Unquomonk Brook (Williamsburg), Thousand Acre Brook (Athol), Muddy Brook (Hardwick), Swift River (Belchertown) and Jones River (Kingston)--with the Jones River site now a Riverways Priority Project.

Measuring accumulated sediment behind Unquomonk Brook Dam, Williamsburg

As part of this local work, Adopt-A-Stream recently completed a DEP Section 319 grant with Stream Teams in Scituate and East Longmeadow (see related article). This project included direct neighborhood outreach and workshops and facilitated the installation of four rain garden/stream buffers. The rain garden slide show and workshop that has come out of this project is being used across the state to educate homeowners about the use of rain gardens for stream protection.

The Massachusetts Adopt-A-Stream Program is fortunate to have a wonderful and dedicated group of local stream advocates that work on behalf of their local rivers and streams. By looking through past newsletters, you can catch a glimpse of the achievements of these groups – including water quality problems solved, the many tons of trash removed, the many miles of trails developed, countless outreach and education events, and hours of advocacy work. We thank you all and look forward to another 20 years!

Adopt-A-Stream Leads Community Facilitation on River Restoration Projects

River restoration projects present an opportunity to bring residents to their river and imagine what restoration might look like. Since dam removals can involve significant aesthetic change to a community, citizen involvement in the process is highly recommended. When people understand the scientific process and how rivers function, a more informed outcome can be created. Particularly for publicly-owned dams requiring public dollars for repair or removal, local citizens often find themselves weighing the "pro's" of dam removal (restoration of river ecology, a one-time cost and removal of liability) with the "con's" (a change in aesthetic and recreational experience). There is often conflicting views surrounding projects--early dialogue and education can help dissipate local concerns about change in the community.

Neponset River Restoration and Remediation Project

Neponset Public Meeting with 200+ attendees

The diverse communities of Milton, Hyde Park , Mattapan and Dorchester are considering ways to restore the Lower Neponset River as they review Riverways-funded feasibility and polychlorinated biphenyl studies. The river has the potential to provide shad and herring habitat (both of which are diminished), remediate toxic sediment, and re-open a 17-mile freely flowing river from Walpole through Blue Hills Reservation and into the Boston Harbor Islands. AAS is an integral part of this project through serving on the Technical Advisory Committee, coordinating and leading community meetings, meeting one-on-one with partners and working between state agencies to combine the project with ongoing greenway work and corridor revitalization.

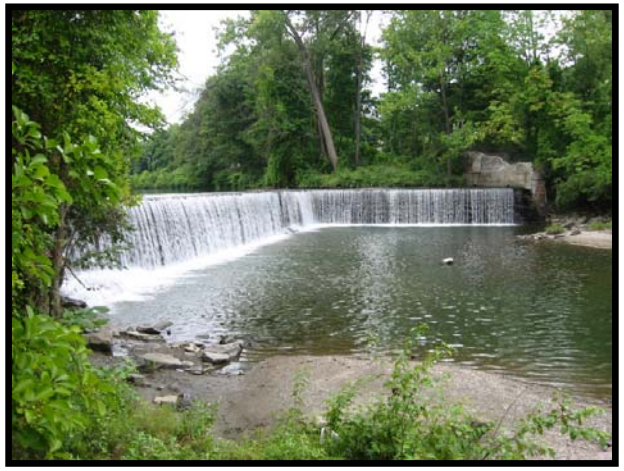
Mill River Habitat Restoration Project

The Taunton community is struggling with aging infrastructure and recent flooding problems that have caused evacuations, economic losses, and the loss of recreational opportunities. AAS has worked to include the dam owners in a three-dam feasibility study to look at options for fish passage and river restoration along the entire river. A successful project will reconnect Mount Hope Bay with >270 acres of spawning habitat with a projected run of >100,000 fish. The partnership project, led by Riverways and the Southeastern Regional Planning and Economic Development District, has involved a long list of local, state and federal partners because of the potential for the restoration of a large herring run and high quality river habitat. AAS has managed this project and convened a citizen advisory group to involve local residents, city officials and the watershed association in creating greater stewardship and understanding of the river's resources and potential for restoration.

AAS leads Mill River tour for Citizen Advisory Group

Green River Ecosystem Restoration and Fish Passage Project

Over the past several years, AAS has worked with the Deerfield River Watershed Association to sponsor a Stream Team survey of the Green River and to bring constituents to the river. Members of the Green River Stream Team formally became a Chapter of the Deerfield River Watershed Association, now known as Friends of the Green River. By sponsoring a local dam information workshop and participating in the Green River Urban Rivers Visions, members are raising awareness of the findings of the Army Corp of Engineers' "Green River Ecosystem Restoration and Fish Passage Feasibility Study". This report recommends the removal of the lower two dams and fish passage at the upper two dams, supporting the restoration and revitalization of the Green River as an amenity to the Town of Greenfield. Adopt-A-Stream staff continues to provide technical support and will work with the Friends of the Green River and the various municipal boards involved in the decision-making process. Project proponents hope to restore an Atlantic salmon run from the Atlantic Ocean, into the Connecticut River, through the Green River spanning multiple states and reaching Vermont.



Adopt-A-Stream Implementation Awards

AAS provides implementation awards to local groups to help them carry out efforts to protect streams and rivers. The 2007 award round provided funding to three local watershed projects.

City of Quincy

Neponset River Riverwalk Inventory

In 2002, the Friends of the Neponset Estuary (a Stream Team since 1995) and the Neponset River Watershed Association co-developed and published the "Conceptual Plan, Neponset Riverwalk, Quicy and East Milton, MA". The plan identified the goal of establishing a multiuse trail along the southern edge of the Neponset Estuary through the connection of existing paths. With a population of over 90,000 people in Quincy alone, the Riverwalk would receive extensive use as it also has the potential to connect two other major state environmental resources, Wollaston Beach and Squantum Point Park, through a comprehensive trail.

The City of Quincy's Riverwalk Task Force brings together municipal officials, representatives of environmental organizations and other interested citizens to advance the "Riverwalk" conceptual plan. The Implementation Award funded an infrastructure and ecological inventory of the Riverwalk plan by the Ecological Extension Service of the Massachusetts Audubon Society resulting in the basis for the next steps in implementing the Riverwalk project.

Blackstone River Watershed Association

Riparian "non-buffer" observed in Blackstone survey

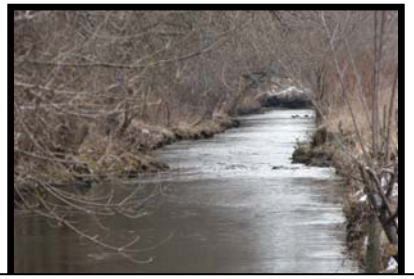
West River Stream Team Shoreline Survey and Action Planning

The Blackstone River Watershed Association received a grant to start a Stream Team and conduct a Shoreline Survey on the West and Mill Rivers in Uxbridge, including a targeted approach to reach local businesses. The team's report and action plan has been shared with the watershed association to identify next steps to better protect and restore these rivers and the Report findings and Action Plans are now being presented to the eight towns that call the Mill and West Rivers their own. Over 30 stream team surveyors, aged 15-72, identified ongoing residential development incorporating large Kentucky bluegrass lawns and in-ground, automatic irrigation systems, the spread of invasive aquatic plants and stormwater pollution as some of the threats hitting their local rivers.

Salem Sound Coastwatch

Community Education and Outreach: "Community Access to the North River: Bringing the River to the People"

The North River Stream Team, in conjunction with Salem Sound Coastwatch, completed a Shoreline Survey of the North River in 2006, with one of their primary action items being outreach and education about the North River. The North River and its four tributaries flow through Peabody and Salem, with much of the riverways culverted and underground. The confluence of the tributaries is located in downtown Peabody center and has been the location of repeated, extensive, costly flooding. The community education and outreach program involved two public presentations and multiple local cable television presentations. The presentations comprised three overviews: (1) land use in the Peabody/Salem area; (2) how rivers work and new river management approaches; and (3)new trends in low impact development and alternative site design practices. The presentations were attended by residents and officials from both communities who were interested in learning more about alternative development practices to reduce increased stormwater runoff in the future. The presentations led to increased dialogue between the city, residents, municipal board/commission members and non-profit organizations.



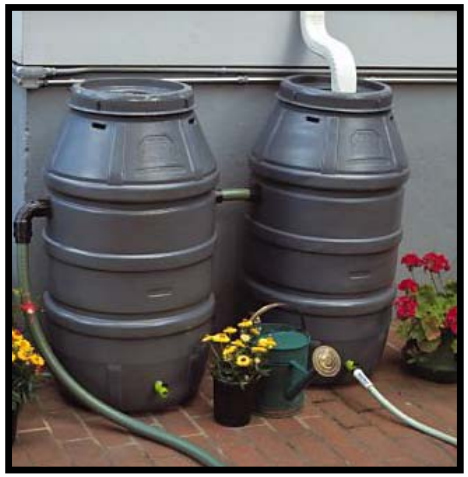
Smelt spawn at the North River "head of tide"

Stream Team Implementation Award Success Story: Reading/North Reading Stream Team

The Reading/North Reading Stream Team has seen its rain barrel program go from a volunteer effort to full adoption under the Town of Reading's Water Conservation Program. The Stream Team started its rain barrel program with a Stream Team Implementation Award in 2003. The award funded programs in two towns. In North Reading, a rain barrel revolving-fund was set up. An initial batch of rain barrels were purchased by the Town, then sold to residents at a reduced rate with the revenue going towards the purchase of more barrels. The North Reading Water Department has continued this program ever since, selling about 15 barrels per year.

In Reading, the Implementation Award was used to purchase several rain barrels for demonstration purposes only and to partially fund the printing of an informational brochure. The Town's involvement was limited to providing display space and drop-off/pick-up space for a one-day rain barrel sale run by the Stream Team.

The Stream Team ran rain barrel sales over the next two summers with the Town of Reading's involvement limited to providing display space for several barrels. By 2006, however, the Stream Team's consistency and the increasing urgency of water conservation in Reading convinced the Town to become an active partner. Rain barrel rebates were added to the Town's Water Conservation Program, which already offered rebates for low-flow toilets, high-efficiency clothes washers, and moisture sensors for irrigation systems. Rain barrel order forms and rebate forms were made available at Reading's DPW office and on the Town's web site.



Finally, in the spring of 2007 when shipping costs made the previous sales model untenable, Reading DPW stepped in and offered to pre-purchase the barrels so that residents could buy directly from the Town. A wholesale price plus the rebate brought the price down to $25 for painted barrels and $15 for unpainted barrels. DPW suddenly found itself in the rain barrel business and sold nearly 100 barrels during the summer of 2007. The Stream Team had all but put itself out of business.

Information about Reading's Water Conservation Program can be found here: www.ci.reading.ma.us/Pages/ReadingMA_Water/conservation/index . Information about the Reading/North Reading Stream Team can be found here www.ci.reading.ma.us/Pages/ReadingMA_Water/conservation/index . The Great American Rain Barrel company is at http://www.greatamericanrainbarrel.com/.

Stormwater DVD and slide show now available

From 2003-2007, Adopt-A-Stream worked with two communities -- Scituate and East Longmeadow – to conduct homeowner outreach and education about stormwater infiltration and raingardens. A DVD was created as a case study of the projects in the two communities. The DVD highlights the impacts of nonpoint source pollution and stormwater runoff and shows the results from the work done by the volunteers and stream teams in each town. Adopt-A-Stream has also developed a rain garden slide show and is bringing it to garden clubs and other groups around the state. If you are interested in either the DVD or slide show, contact Rachel at Rachel.Calabro@state.ma.us

A Kingfisher spied by a Litt River stream surveyor.

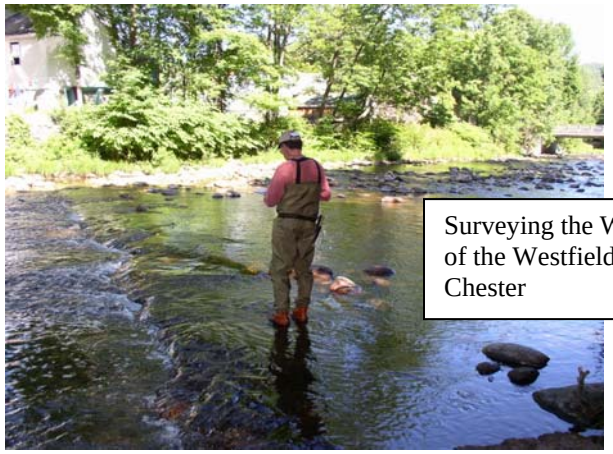
The Marlborough Stream Teams survey Mowry Brook.

"I am thrilled that we have a very motivated and talented crew of volunteers that are making the stream teams in Marlborough a reality, and not just a "hope to get done" item. Finally the project is off and running!"
-Priscilla Ryder, Marlborough Conservation Agent

By the Numbers 2007
135 miles of stream surveyed
11 Stream Teams/Shoreline Surveys
259 volunteers
14 additional Teams work on implementation projects
400 people implementing projects and clean ups
17 watersheds

Joan Kimball, *Riverways Program Director*
Rachel Calabro, *AAS Program Coordinator*
Carrie Banks, *AAS Stream Stream Team Organizer – Western Watersheds*
Gabrielle Stebbins, *AAS Community Organizer*

Adopt-A-Stream worked with 11 stream teams in 2007 to conduct shoreline surveys and river protection efforts.
Groups included:
West & Mill Rivers (Uxbridge, Douglas)
Rawson Hill Brook (Shrewsbury)
Paskamansett River (Dartmouth)
Mowry Brook (Marlborough)
Little River (Gloucester)
North River (Peabody)
Ox Pasture & Batchelor Brooks (Rowley)
Mill and Bennett Brooks (Northfield)
Green River (Greenfield)
South River (Conway)
Westfield River East, West & Middle Branches
Connecticut River (Holyoke)
Webster Lake tributaries (Webster)
Hamilton Reservoir tributaries (Holland)



Surveying the West Branch of the Westfield River, Chester

"This is a *fantastic* project. I haven't had this much fun in I don't know when!"
-Westfield East Branch Stream Team Member